

DOCUMENT RESUME

ED 063 533

AC 012 631

AUTHOR Hiemstra, Roger  
TITLE A Conceptual Framework for Educational Program  
Planning and Evaluation.  
PUB DATE 15 May 72  
NOTE 22p.  
EDRS PRICE MF-\$0.65 HC-\$3.29  
DESCRIPTORS \*Conceptual Schemes; \*Educational Programs; \*Models;  
\*Program Evaluation; \*Program Planning

ABSTRACT

A conceptual framework developed from a review of literature, program planning experiences, and trial and error is presented. The model is presented for discussion. The framework utilizes a simple linear flow of events, which is generally only a forward, sequential flow. Optional routes or phases, and possible recycling routes are given. (CK)

U.S. DEPARTMENT OF HEALTH,  
EDUCATION & WELFARE  
OFFICE OF EDUCATION  
THIS DOCUMENT HAS BEEN REPRO-  
DUCED EXACTLY AS RECEIVED FROM  
THE PERSON OR ORGANIZATION ORIG-  
INATING IT. POINTS OF VIEW OR OPIN-  
IONS STATED DO NOT NECESSARILY  
REPRESENT OFFICIAL OFFICE OF EDU-  
CATION POSITION OR POLICY.

ED 063533

FOR DISCUSSION ONLY

A CONCEPTUAL FRAMEWORK FOR  
EDUCATIONAL PROGRAM PLANNING AND EVALUATION

Roger Hiemstra  
Assistant Professor  
Dept. of Adult and Continuing Education  
University of Nebraska

May 15, 1972

PERMISSION TO REPRODUCE THIS COPY-  
RIGHTED MATERIAL HAS BEEN GRANTED  
BY

Roger Hiemstra

TO LIBRARIES AND ORGANIZATIONS OPERATING  
UNDER AGREEMENTS WITH THE U.S. OFFICE  
OF EDUCATION. FURTHER REPRODUCTION  
OUTSIDE THE ERIC SYSTEM REQUIRES PER-  
MISSION OF THE COPYRIGHT OWNER.

AC 012631

---

This material may not be reproduced or used in any way without the  
written consent of the author.

The framework described in the following pages has been developed from a review of literature, program planning experiences, and trial and error. The model, its description in outline form, and a corresponding decision-making process are presented for discussion purposes only. The framework will no doubt need modification for application within your agency and/or the educational setting in which you work. Improvement suggestions are welcome.

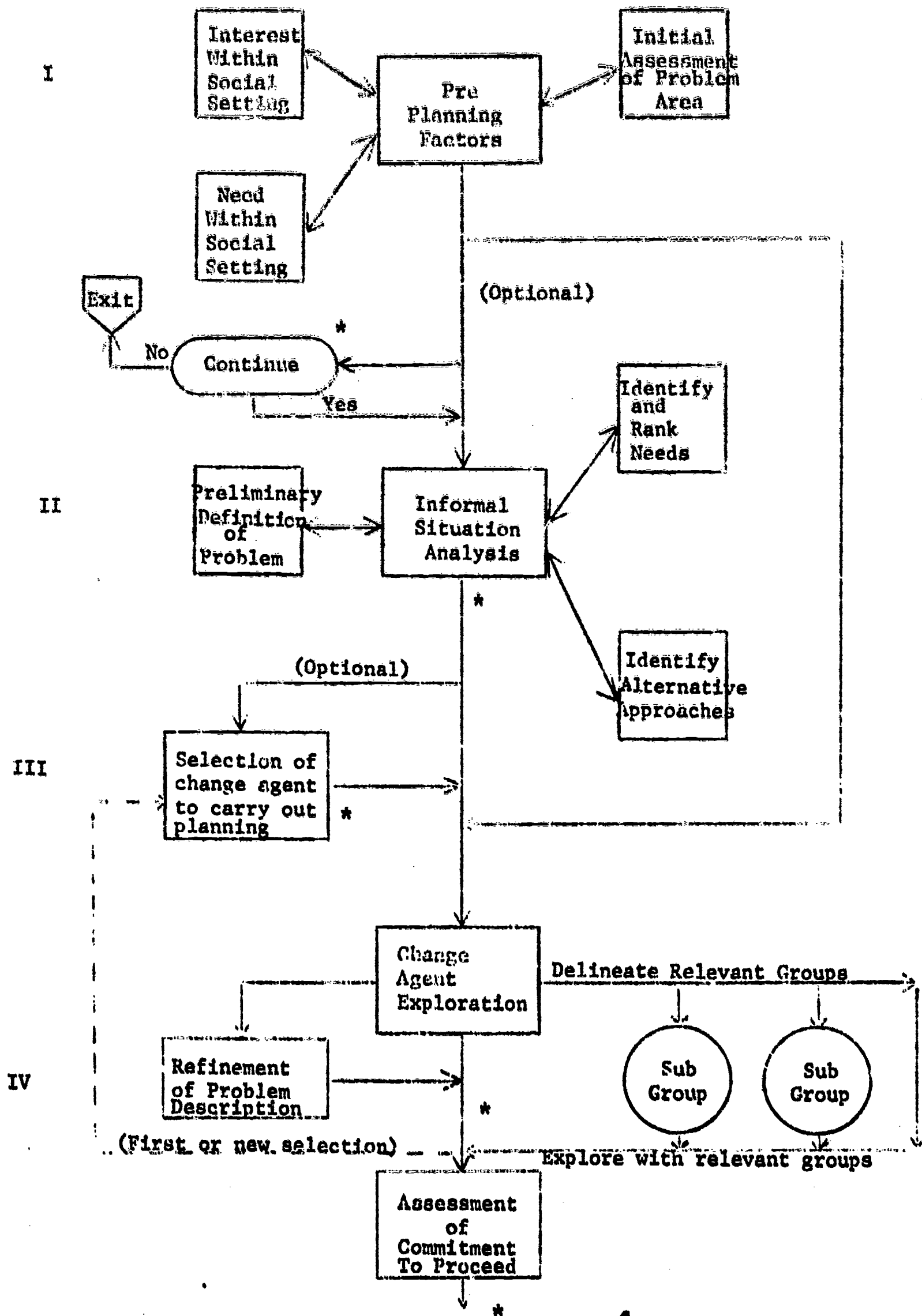
It should also be noted that the framework utilizes a simple linear flow of events. Single direction arrows generally indicate that an event is a component of the larger event, the component requiring completion before the total event can be considered completed. Double direction arrows generally indicate a dynamic flow between the larger event and its component, with both requiring continuous analysis as to their inter-relatedness. The model also shows generally only a forward, sequential flow of events. There is, however, meant to be a dynamic quality attached to this flow in that some events may be completed before others, that some events are never completed, and that some events must be repeated before they are completed. Note, too, optional routes or phases, possible recycling routes, and a plea for a continuous evaluation (Exit/Continue) decision.

## Table of Contents

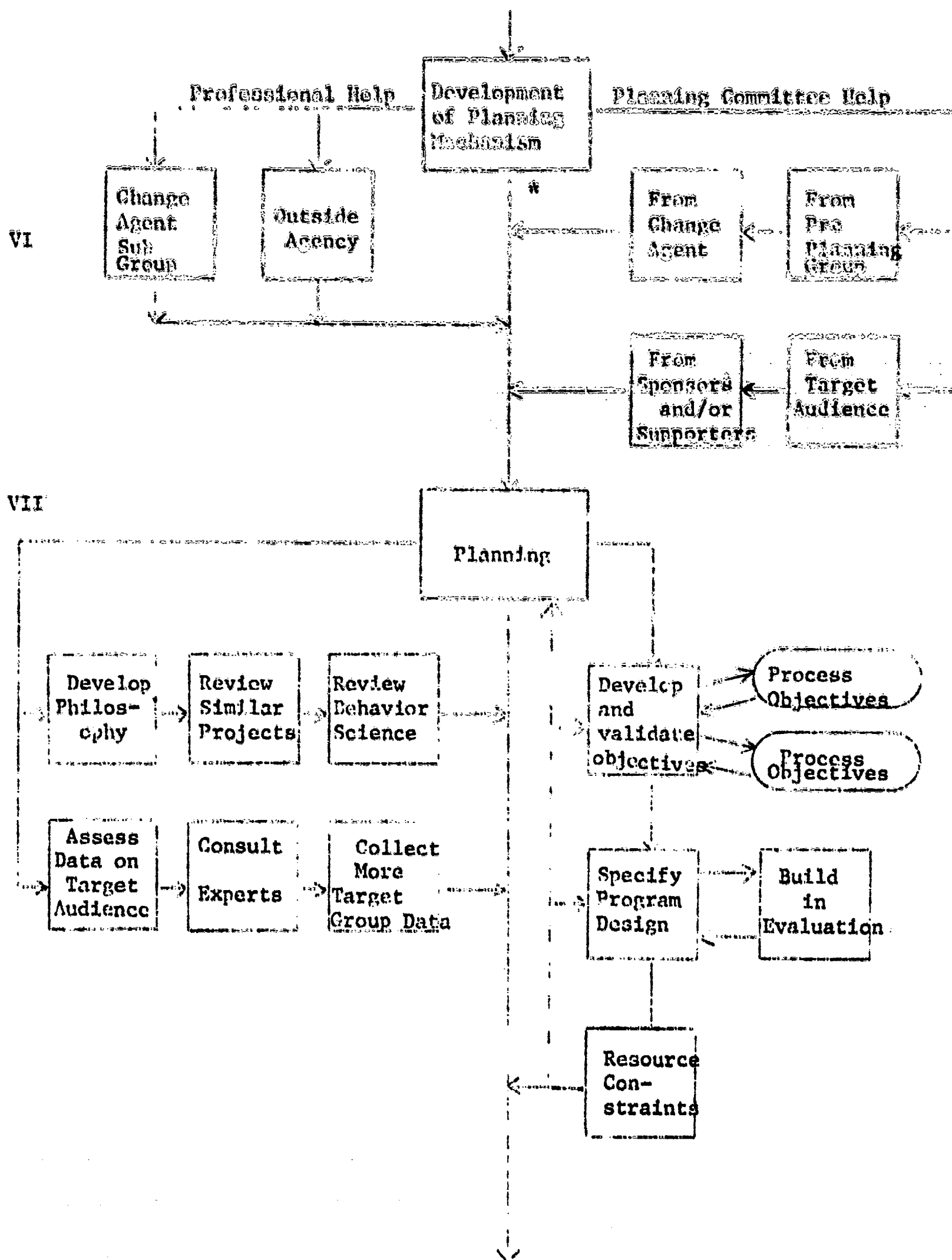
	<u>Page</u>
The Framework Schematic . . . . .	1
The Description of the Framework . . . . .	4
The Decision-Making Process for the Framework . . . . .	10
Definitions and Uses of Data Collection Methodologies . . .	17

# THE FRAMEWORK SCHEMATIC

1



\* Repeat Exit/Continue Decision



VIII

Determine  
Method  
of  
Procedure  
\*

IX

Motivation  
and/or  
Publicity  
\*

X

Develop  
Needed  
Resources

Implemen-  
tation  
\*

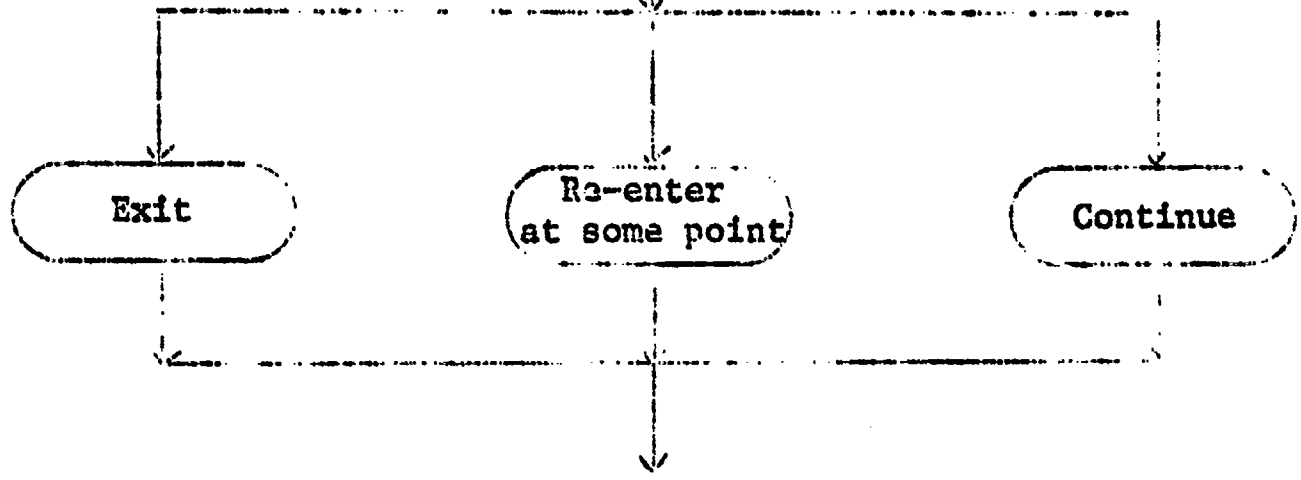
Collect  
Evaluation  
Data

XI

Written  
Report  
or  
Record

Evaluation  
and  
Conclusion

Analyze  
Evaluation  
Data



## Description of the Framework

- I. Preplanning factors - dis-ease in a social setting (community, organization, program, etc.)
  - A. areas of need within the social setting
  - B. areas of interest within the social setting
  - C. attitudes within the social setting
  - D. data from related projects
 Exit/Continue Decision\*
  
- (opt.) II. Informal situation analysis (done by interested persons from a change agent organization, community, social setting or organization)
  - A. identification, definition, diagnosis, and ranking of areas of need (forces inside the social setting, inside the social setting representing outside interests, and forces outside the social setting)
    1. problems identified by the pre-planning social setting
    2. preliminary definition of problems by pre-planning social setting
    3. preliminary priorities established by pre-planning social setting
  - B. identification and definition of alternative approaches of need
    1. alternative approaches identified by the pre-planning social setting
    2. preliminary definition of alternative approaches by the pre-planning social setting
    3. preliminary priorities established for approaches
  - C. identification and exploration of feasibilities of alternative approaches
    1. determine posture of power structure (including blockers)
    2. determine interest of probable target group
    3. determine interest of probable supporting groups
    4. determine interest of probable sponsoring groups
    5. determine approximate requirements of alternative approaches
  
- (opt.) III. Selection of the type of change agent or organization to carry out the planning and project
  - A. review areas of need, alternative approaches, and feasibilities
  - B. determine and explore alternative type of change organizations
  - C. determine most appropriate type of change agent
  - D. choose change agent which provides the best chance of achieving success
    1. background agent will be required to have
    2. in-service training that might be required
  
- IV. Change agent exploration
  - A. delineation of relevant groups or individuals

---

\*Made at the completion of each phase - a continual evaluation of the planning process.



1. target group
  2. planning groups
  3. power groups (structure)
  4. supporting or resource groups
  5. sponsoring groups
  - B. exploration with relevant groups or individuals
    1. determine interest and attitudes of groups
    2. check relevance of groups or individuals
    3. begin a situation analysis
    4. begin a needs assessment
    5. determine alternative approaches
    6. check feasibilities
  - C. refinement of description of the problem, alternative approaches, and resources
    1. outline problem in detail
    2. limit the problem
    3. determine priorities
    4. outline the alternative approaches in detail
    5. determine resources available as exactly as possible
      - a. money
      - b. educational aids
      - c. leaders
    6. select most likely approach
  - D. is a different change agent needed? if so go back through III and IV
- V. Assessment of commitment
- A. commitment to proceed
    1. by the planners (pre)
    2. by the sponsoring and supporting groups
    3. by the target group
    4. by the change agent or organization
  - B. commitment not to hinder progress by power sources
- VI. Development of a planning mechanism
- A. a planning committee
    1. from change agent
    2. from pre-planning
    3. from target group
    4. from sponsoring groups
    5. from supporting groups
  - B. professional planning organization
    1. sub-group of change agent
    2. outside professional group
- VII. Planning
- A. develop a philosophy
    1. determine existing and related beliefs, values, and attitudes
    2. develop a philosophical base for planning

- B. review of similar projects
  - 1. to determine the types that have had the most success
  - 2. to determine the type of problems proven most susceptible to attack
  - 3. to determine the methods of attack
  - 4. to determine goals that have been set (and objectives)
  - 5. to determine the goals that have proven achievable and those which have not
- C. consultation with experts in the field
  - 1. to discover latest approaches
  - 2. to become aware of possible problems
  - 3. to get a general evaluation of the proposed project
  - 4. to attempt to identify the possible side effects of the program
- D. review of data in the field of behavioral science pertinent to the program
  - 1. to determine conditions under which behavioral change is encouraged
  - 2. to determine conditions under which motivation may be encouraged
- E. determine extent and usefulness of available data on target group
  - 1. census
  - 2. previous studies
  - 3. agency and organization records
- F. collect additional data on target groups
  - 1. to further analyze the situation
  - 2. to provide data for evaluation
  - 3. to diffuse knowledge of problems and program planning
  - 4. to determine value systems
  - 5. to determine how they might best be reached
  - 6. to understand why other programs have succeeded or failed with this group of targets
- G. development of outcome objectives (goals)
  - 1. determine priorities of possible outcome objectives
  - 2. select outcome overall objectives (educational vs. organizational)
  - 3. select alternative outcome objectives
- H. development of process objectives (teaching)
  - 1. determine priorities of possible process objectives
  - 2. select process objectives
  - 3. select alternative process objectives
  - 4. select process objectives to be used as evaluation criteria
- I. validation of outcome objectives
  - 1. determine the relationship between outcome objectives and the problem
  - 2. determine the extent to which the achievement of the outcome objectives will solve the problem

- J. validation of the process objectives
  - 1. determine the relationship between the process objectives and the outcome objectives
  - 2. determine the extent to which the achievement of each process objective and each combination of process objectives will secure the outcome overall objectives
- K. specify program design
  - 1. determine learning outcomes
  - 2. validate learning outcomes
  - 3. develop lesson activity to obtain each learning outcome
  - 4. validate lesson activity for obtaining each learning outcome
  - 5. determine sequence of lesson activities
  - 6. determine method for each lesson activity
  - 7. determine location of instruction
  - 8. determine instructional aids
  - 9. determine pace of change required
  - 10. determine length of program
  - 11. determine area of influence and area of activity
  - 12. determine evaluation data collection procedures\*
    - a. by change agent
    - b. by others - professionals, committees, etc.
  - 13. develop appropriate instrument with reliable questions
  - 14. select representative sample for evaluation
  - 15. select the proper type of analysis for the evaluation
  - 16. need to be concerned about staff qualifications, scope of services, methods, facilities, equipment, material, planning, supervision, publicity, administration, and the relationship with other agencies in the evaluation program
  - 17. planned calendar of events
- L. plan for resource needs and allocation (planned budget)
  - 1. the interdependence among all the explicitly stated objectives
  - 2. the interdependence in the use of all available resources
  - 3. the influence of all external variables on the setting of intermediate targets

#### VIII. Determination of method/procedure

- A. pilot study
- B. demonstration
  - 1. result demonstration
  - 2. method demonstration
- C. total implementation plan
  - 1. changes in program
  - 2. when to proceed
- D. check planning needs with procedures

---

\*Evaluation needs to be built into the planning process as early as possible. For some programs it will need to be considered much earlier than this phase.

IX. Motivation and/or publicity

- A. motivation of possible sponsors
  - 1. advertisements
  - 2. personal calls
  - 3. news releases
  - 4. mailed materials
  - 5. organizational visits
- B. motivation of supporting groups
  - 1. for funds
  - 2. for volunteers
  - 3. for materials
- C. related study motivational techniques

X. Implementation

- A. develop or organize needed resources
  - 1. teacher training
  - 2. instructional aids
  - 3. money
  - 4. leaders
  - 5. evaluation instruments
- B. implementation of the program (calendar of events)
  - 1. organization and/or registration
  - 2. instruction and/or action
  - 3. evaluation data collection (a problem to be reckoned with - will target group individuals need to be tested or personally evaluated; how will they react)
    - a. by an evolved or standardized instrument
    - b. from other involved persons or sources
  - 4. collection of data on side-effects of the program
    - a. anticipated
    - b. unanticipated

XI. Evaluation and Conclusion (and/or continuation)

- A. analysis of the evaluation data collected (include data on the program design and the planning process)
  - 1. by instrument or others
  - 2. of side-effects
- B. interpretation of the collected data (standard setting)
  - 1. cost of any change
  - 2. extent to which results were caused by something other than the program
  - 3. review of reports of similar projects - comparison
  - 4. interpretation of data collected by instrument or others
  - 5. interpretation of side effects
  - 6. comparisons of any control group with experimental groups
  - 7. were objectives achieved - is target group different or can it do things differently
  - 8. if the change did not take place what were the reasons
    - a. failure of planning to adapt itself optimally to its decision environment
    - b. the resistance of this environment to change

- c. conflicting relations (and/or programming ideas) between experts and policy makers
- d. failure to achieve an optimal distribution of planning functions according to their position on a dependency-autonomy continuum of the program development process
- e. neglect of various planning functions
- f. rigidity in planning attitudes and procedures
- g. inappropriate mix between plan-oriented and process-oriented forms in the implementation phase
- C. provide feedback
  - 1. to social setting
  - 2. to target audience, sponsor, and change organization
  - 3. to related educators
- D. provide a written report of the project or programs
- E. provide for later collection of data
- F. Exit - Re-enter - Continue
  - 1. if more changes are needed, which agency is best qualified
  - 2. of all possible program extensions, would a continuation of the same program be most beneficial



### The Decision-Making Process For the Framework

The following are factors of the decision environment and should be considered as an overriding boundary within which all decisions are made:

1. The number and diversity of organized interest groups and their power to influence or block decisions.
2. The degree to which political opposition is tolerated or accepted, and the role assigned to it (depends upon the political influence of power leaders and the size of the community).
3. The dependence of the economic system on private enterprise and the characteristics of enterprise (size, monopoly, and others) and of entrepreneurial behavior.
4. The efficiency of the relevant informational systems: Their capacity, load, reliability, promptness, secrecy, etc.
5. The structure of bureaucratic institutions and their performance.
6. The educational level of the population and the size of the university-educated elite.
7. The availability of relevant information and its reliability.
8. The predictability of change within the social setting and of external changes that will affect decision-making.

A key for the column labeled "when made" is as follows:

early = the decision usually needs to be made early in the phase and before much data can be collected

middle = the decision usually needs to be made somewhere in the middle of the phase; after some data have been collected and before all the data have been collected

late = the decision usually needs to be made late in the phase and after most or all of the data have been collected

Note: It is assumed a decision must be made probably after each numbered decision point whether to continue, re-enter, or exit, and a continuing process of evaluation should be carried out.

Phase	When Made	Decisions to be Made
I. preplanning	late	1. preliminary decision to proceed
(op)II. informal situation analysis	middle	2. identification, definition, and priority setting of problem(s)
	late	3. selection of a feasible approach to solve the problem
(op)III. selection of the type of change agent or organization to carry out the planning and project	late	4. selection of the most appropriate change agent or organization (background and in-service training required)
IV. change agent exploration	early	5. delineation of relevant sub-systems
	middle	6. refinement of problem identification, definition, and priority setting
	late	7. refinement of selection of a feasible approach to and resources for solving the problem, including possible selection of a new change agent
V. assessment of commitment	late	8. continuation, re-entry, or exit
VI. development of planning mechanism	late	9. planning committee selection or use of professional planning organization
VII. planning	early	10. relevant problems that have been solved and development of a philosophy statement

(op = optional)

<u>Data to be Collected</u>	<u>Methodologies Available</u>
1. is source credible, powerful, reliable	1. intuitive listening
2. forces inside and outside the social setting, areas of need, apparent interest and attitudes	2. informal interview, systematic study of avail. records, personal interview
3. posture of the power structure, probable target system, probable sponsors, supporters and resources	3. personal and group interview, mailed quest., checklist, review of related problems, (community survey, and power structure analysis)
4. the various change agents or organizations available to or within setting what they can do, success record, etc.	4. checklist, study of avail. records, systematic review of related problems, content analysis of reports, mail questionnaire
5. the various community or setting groups - target, planners, power, supporting resources, and sponsors--check their interests	5. community survey, power structure analysis, personal interview, team interview
6. situation analysis (forces) and areas of need	6. informal interview, study of avail. records, checklist
7. posture of the power structure, probable target group, sponsors, supporters; change agent. strength and weaknesses, available resources (money, educational aids, leaders, etc.)	7. interviews, mailed quest., team problem solving, telephone survey, checklist, power structure analysis, community survey, content analysis of related problem reports
8. amount of commitment by planners, sponsors, supporters, target groups, and administrator of change agent; amount of commitment to not hinder progress by power sources	8. personal interview, systematic observation, checklist, interest inventory
9. available skilled people in the relevant subgroups	9. mail quest., personal interview systematic observation, anecdotal records, supervisory ratings, peer evaluations
10. types of problems that have been most successfully solved, those most susceptible to attack, most successful methods of attack, determination of goals set and achieved	10. content analysis of related problem reports, case studies, systematic study of available records



Phase	When Made	Decisions to be Made
	early	11. selection of experts in the field and the type of advice sought
	early	12. selection of the field of behavior science pertinent to the program
	middle to late	13. nature of the target group
	middle	14. outcome objectives selection (including acceptance of validation results)
	middle to late	15. the program design acceptance (lesson plan sequence and method, location of instruction, instruction aids, required pace of change, length of program, area of influence and activity, evaluation procedures, and calendar of events)
	late	16. resource allocation
VIII. determination of method of procedure	late	17. selection of method and time of procedure
IX. motivation and/or publicity	late	18. selection of motivational techniques
X. implementation	early	19. selection of resource development techniques

<u>Data to be Collected</u>	<u>Methodologies Available</u>
11. the latest approaches, problems that might be encountered, their evaluation of our proposed project, an indication of possible side-effects	11. telephone interview, personal interview, mailed questionnaire, (critical incident technique, supervisory ratings)
12. conditions under which behavioral change and motivation is encouraged	12. content analysis of available records, case study, systematic study of available records
13. all data on the target group: Value system, how they might be reached, how other programs have succeeded or failed with them	13. interest and attitude inventory, content analysis of census data, community survey, (school survey), personal interview, telephone survey, panel survey, mailed questionnaire, systematic study of available materials
14. all possible process obj., their priority needs, their relationship to the problem, how they can be evaluated, educational and organizational differences	14. team problem solving, content analysis, systematic study of available materials
15. learning outcome needs, resources available (instructional, people, money, and evaluation), feedback on lesson planning and evaluation design, area of activity, and area of influence (side-effects), time flow needs, scope of project needs	15. checklist, team problem solving, informal interview, group interview systematic study of available materials, content analysis
16. interdependency among objectives, interdependency of resources, influence of external variables	16. team problem solving, content analysis
17. pilot study or demonstration results	17. field study, telephone survey, mailed quest., personal interview, systematic observation, systematic study of available records
18. kinds and uses of motivational media, probable acceptance of motivation, motivational procedures of other studies or programs	18. systematic study of available material, content analysis, team problem solving
19. teacher training needs, instructional needs, evaluation needs, abilities of leaders, logical scope of project	19. personal interview, team problem solving, critical incident technique

Phase	When Made	Decisions to be Made
	early to late	20. implementation rate
	early to late	21. adaptation
XI. conclusion	late	22. evaluation data interpretation
	late	23. report data
	late	24. continuation, re-entry, or exit

<u>Data to be Collected</u>	<u>Methodologies Available</u>
20. are things on schedule (need slowing down or speeding up)	20. systematic observation, content analysis, case study, informal interview
21. number of participants, resource reserves, side-effects, intermediate objective attainment, sensed feelings and attitudes of participants	21. telephone survey, mailed quest., personal, group and team interviews, systematic observation, systematic study of avail. records, informal interview, community survey, content analysis
22. planned evaluation data, side-effect data, cost analysis, other similar report data, analysis of foregoing phases, resistance of environment to change, conflicting relations along the way	22. field experiment, field study, personal interview, case stud., team interview, mailed questionnaire, systematic observation, systematic study of available records and material, anecdotal records, community survey, content analysis
23. who needs or desires feed-back, future use of data	23. team problem solving, checklist mailed questionnaire, content analysis
24. evaluation interpretation	

## Definitions and Uses of Data Collection Methodologies

**Mailed questionnaire** - a mailed survey form to make a broad analysis of some social phenomenon or problem

Uses: for reaching a wide geographic distribution of people  
for reaching a relatively homogeneous, fairly well educated group  
understanding of current situations  
to determine factual material  
measure attitude and interests

**Checklist** - forms given to respondents individually or in groups where answers are checked on a list of statements

Uses: groups of people in a meeting  
random individuals from a group meeting for completion at home  
to collect evidence of progress made or practices adopted

**Telephone survey or interview** - a method of quickly and relatively inexpensively collecting information

Uses: where good rapport with respondents has been established  
gathering factual information  
gathering opinions, suggestions, and ideas  
understanding feelings and attitudes

**Community survey** - an analysis of the aspects of behavior and social interaction within a given community

Uses: intergroup relations  
physical aspects of communities  
historical perspective  
population mobility  
technological changes  
changes in status and values

**Comprehensive school survey** - exploration and evaluation of the many aspects of a school system (usually by a team of experts)

Uses: physical aspects  
administrative procedures  
financial support and procedures  
educational program, personnel, and methods

**Panel survey** - the interview and study of a selected sample of respondents at two different times

Uses: study changes in behavior  
study changes in feelings and attitudes

**Interest or attitude inventory** - a device for finding out in what participants are interested

Uses: study of interests and interest areas  
study of attitudes of participants  
study of attitudes on a particular subject

**Personal interview** - the collection of data through direct verbal interaction between individuals

Uses: specific facts and opinions  
measure attitudes and interests  
understanding of current situations  
when a high percentage of returns is needed

**Informal interview** - an unstructured and unstandardized method of obtaining answers to various questions and gaining information on various topics

Uses: beginning discussion on a topic  
small group discussion  
insight on a problem or program's progress

**Group interview** - collection of data through direct verbal or written interaction between the interviewer and a small group (6 - 12) of respondents

Uses: "gangs" or homogeneous groups of individuals solving various social and community problems

**Team interview** - collection of data through direct verbal interaction between two interviewers and (usually) one respondent

Uses: when time is a factor  
when interviewing individuals with high intelligence, much experience, and an extensive educational background  
exploratory studies

**Case study** - a chronological report of the development of a project, activity, or individuals

Uses: study of the effect of a program or activity  
study of changes in attitudes of individuals  
study of a process

**Systematic study of available records** - an analysis of the available records on a particular subject or need area

Uses: where an interview or questionnaire procedure is impossible for information on the past  
historical studies

**Systematic observation** - recommended practices are observed and the extent of adoption or change recorded

Uses: study of practice adoption

**Content analysis** - the objective, systematic, and quantitative description of the manifest content of communication on a particular subject, either directly or indirectly

Uses: analysis of propaganda  
treatment of a particular subject in text books  
analysis of the readability of various materials  
motivational aspect behind written materials  
development of objectives for programming  
effects of different forms of communication  
historical studies



Anecdotal record - observations and descriptions of behaviors deemed typical of an individual

Uses: study of child behavior  
study of adult behavior

Role playing - collecting research data in a situation where only one (usually) research subject is involved, usually in a key role

Uses: measuring the effectiveness of individuals in various role situations to study certain types of behavior  
situations of group involvement

Team problem solving - the attempt to solve a particular problem through team action

Uses: studies of player interaction in team activities  
studies of group behavior in clubs  
studies of work groups in various projects

Peer evaluations - the evaluation of behavior by an individual's peers

Uses: child behavior  
adult performance

Supervisory ratings - ratings of an individual made by someone in a supervisory capacity

Uses: individual behavior and performance

Critical-incident technique - an interview with the supervisor of an individual to determine specific behavior patterns that are considered critical to the skills being studied

Uses: studies of leadership ability  
determining qualifications of individuals for certain jobs or duties  
studies of individual behavior

Power structure analysis - a determination of the manner in which individual power actors in any social system relate to each other

Uses: community analysis  
formal organization leadership  
assessing leadership skills and experience

Field experiment - a research study in a realistic situation in which one or more independent variables are manipulated by the experimenter under as carefully controlled conditions as the situation will permit

Uses: need to establish casual relations  
study of complex social influences, processes, and changes  
seeking answers to teaching and classroom management

Field study - ex post facto scientific inquiries aimed at discovering the relations and interactions among sociological, psychological, and educational variables in real social structures

Uses: study of various types of practices  
study of community, organization, or institutional situations  
study of role conflict and role-taking effectiveness

